

AUFHAUSER: MATERIAL SAFETY DATA SHEET

Product: AB-0 Phos Copper Brazing Alloy

**AUF
HAU
SER****Aufhauser
Corporation**
39 West Mall
Plainview,
New York 11803
Telephone:
516 694-8696
800 645-9486
Fax:
516 694-8690**SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Common Name : COPPER-PHOSPHORUS BRAZING ALLOY
Chemical Name : COPPER-PHOSPHORUS BRAZING ALLOY
Formula : Cu-P
Product CAS No. : CHEMICAL MIXTURE
Product Use : Welding/Brazing/Soldering
Supplier : AUFHAUSER
Address : 39 West Mall
City, State, Zip : Plainview, New York 11803
Phone : 516-694-8696
EMERGENCY Number : 800-645-9486 (9am-5pm)

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	% Wt.
COPPER	7440-50-8	92.65 - 92.85
PHOSPHORUS	7723-14-0	7.15 - 7.35

INGREDIENT NOTES

NOTE: The percentage by weight values reported for the ingredients in --this product represent approximate formulation values.

NOTE: See Section 8 for Exposure Limits and Section 11 for Toxicological Information.

SECTION 3: HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

Metallic wire, rod or strip. Odorless. Flash Point: Not Applicable

Overexposure may cause kidney and liver damage and blood disorders. May cause eye and skin irritation. May cause respiratory tract irritation. Overexposure to freshly formed fumes may cause a flu-like illness called "metal fume fever". Harmful if swallowed. Causes gastrointestinal irritation, abdominal pain, nausea, vomiting and diarrhea. Not a fire or explosion hazard in solid form. Finely divided dust may ignite and burn rapidly when mixed with air in the proper proportions. Toxic metal fumes may be released in a fire situation.

ROUTES OF ENTRY

Eyes? YES

Skin? YES

Inhalation? YES

Ingestion? YES

POTENTIAL HEALTH EFFECTS

EYE CONTACT may cause irritation.

SKIN CONTACT may cause irritation.

INHALATION may cause irritation of the respiratory tract. Short-term overexposure may cause a flu-like illness called metal fume fever.

Typically metal fume fever begins four to twelve hours after sufficient exposure to freshly formed fumes. The first symptoms are a metallic taste, dryness and irritation of the throat. Cough and shortness of breath may occur along with headache, fatigue, nausea, vomiting muscle and joint pain, fever and chills. The syndrome runs its course in 24-48 hours.

INGESTION is harmful. May cause abdominal pain, nausea, vomiting and diarrhea. COPPER poisoning can result in hemolytic anemia and kidney, liver and spleen damage.

NOTE: The potential health effects described above only apply if dust or fume is formed.

CARCINOGENICITY

NTP? NO

IARC? NO

OSHA? NO

CHRONIC HEALTH HAZARDS

Overexposure may lead to COPPER poisoning, resulting in hemolytic anemia and liver, kidney and spleen damage.

Prolonged overexposure to PHOSPHORUS can cause gastrointestinal distress, garlic breath, necrosis and deformity of the jaw. Systemic effects such as cardiac, liver and kidney dysfunction may result due to prolonged inhalation of fumes.

The absorption of SILVER compounds into the circulation and the subsequent deposition of reduced silver in various tissues of the body may result in the production of a generalized greyish pigmentation of the skin and mucous membrane (argyria). Generalized argyria develops after 2 to 25 years of exposure. There are no systemic effects or symptoms and no physical disability. Once deposited, there is no known means by which this silver can be eliminated; the pigmentation is permanent.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

May adversely affect existing medical conditions, such as eye, skin, respiratory, blood, liver and/or kidney ailments.

Individuals with Wilson's Disease are at increased risk of COPPER poisoning.

NOTE: See Section 8 for Exposure Limits Section 11 for Toxicological Information and Section 12 for Ecological Information.

SECTION 4: FIRST AID MEASURES

EYE CONTACT: Flush eyes with plenty of water. If irritation develops, call a physician.

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SKIN CONTACT: Immediately wash skin with soap and plenty of water. If irritation persists, call a physician.
INHALATION: If exposed to excessive levels of metal fumes, remove to fresh air and seek medical attention.
INGESTION: Procedures normally not needed. If large quantities are ingested, seek medical advice.

SECTION 5: FIRE-FIGHTING MEASURES

Flash Point: Not Applicable

Auto-Ignition: Not Applicable

LEL: Not Applicable

UEL: Not Applicable

NFPA HAZARD CLASSIFICATION

Health: 2

Flammable: 0

Reactivity: 0

HMIS HAZARD CLASSIFICATION

Health: 2*

Flammable: 0

Reactivity: 0

Special: B

* Indicates the possibility of chronic health effects. See Chronic Health Hazards in Section 3 for more information.

EXTINGUISHING MEDIA

Use carbon dioxide, chemical foam or dry chemical. Use any means for extinguishing surrounding fire.

Do NOT use water on metal fires.

SPECIAL FIRE FIGHTING PROCEDURES

Wear NIOSH/MSHA approved positive-pressure self-contained breathing apparatus and protective clothing as specified in 29 CFR 1910.156.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Not a fire or explosion hazard in solid form. Finely divided dust may ignite and burn rapidly when mixed with air in the proper proportions.

Toxic metal fumes may be released in a fire situation.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Contain spillage and scoop up or vacuum. Notification of the National Response Center (800/424-8802) may be required. Refer to EPA, DOT and applicable state and local regulations for current response information.

It is recommended that each user establish a spill prevention, control and countermeasure plan (SPCC). Such plan should include procedures applicable to proper storage, control and clean-up of spills, including reuse or disposal as appropriate (see Section 13: Disposal Considerations).

NOTE In the event of an accidental release of this material, the above procedures should be followed. Additionally, proper exposure controls and personal protection equipment should be used (see Section 8: exposure Control/Personal Protection), and disposal of the material should be in accordance with Section 13: Disposal Considerations.

SECTION 7: HANDLING AND STORAGE

Wash thoroughly after handling. Store in a cool, dry location away from incompatible materials.

Avoid contact with any dusts, mists or fumes resulting from the use of this product.

Do not eat, drink, or smoke in work area.

Use only with adequate ventilation.

NOTE: Consult the most recent OSHA CADMIUM Standard (1910.1027) and its attachments, appendices, etc., for full requirements, some of which are not covered in this Material Safety Data Sheet.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS INGREDIENT	PEL-OSHA	TLV-ACGIH
COPPER		
CAS NO.: 7440-50-8	0.1 mg/m ³ (Fume) 1 mg/m ³ (Dust)	0.2 mg/m ³ (Fume) 1 mg/m ³ (Dust)
SILVER		
CAS NO.: 7440-22-4	0.01 mg/m ³	0.1 mg/m ³
PHOSPHORUS		
CAS NO.: 7723-14-0	0.1 mg/m ³ (as Phosphorous Yellow)	0.1 mg/m ³ (as Phosphorous Yellow)

NOTE: The permissible exposure limits (PELs), threshold limit values (TLVs), potential health effects statements and SARA hazard categories may not be applicable as the hazardous ingredients listed are in the solid form. If dust, powder or fume is generated then these statements will be applicable. Unless otherwise noted, all values are reported as 8-hour Time-Weighted Averages (TWAs) and total dust (particulates only). All ACGIH TLVs refer to the 1995-96 Standards. All OSHA PELs refer to 29 CFR Part 1910 Air Contaminants: Final Rule, January 19, 1989*. *NOTE: As a result of the July 7, 1992 decision by the U.S. Circuit Court of Appeals (AFL-CIO v. OSHA) to vacate the 1989 PELs, OSHA will no longer enforce these new limits and will return to the pre-1989 PELs.

RESPIRATORY PROTECTION

A NIOSH/MSHA-approved respirator is recommended if dust is generated.

VENTILATION

General: local exhaust ventilation as necessary to control any air contaminants to within their PELs or TLVs during the use of this product.

PROTECTIVE EQUIPMENT

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Refer to ANSI/ASC Z49.1-94 (Safety in Welding, Cutting and Allied Processes), published by the American Welding Society, for information on the selection of personal protective equipment. Safety glasses (with side shields). Gloves. Body protection as needed to prevent skin contact.

PERSONNEL SAMPLING PROCEDURE

For COPPER (dust & fume): Refer to NIOSH Manual of Analytical Methods (NMAM), 4th Edition, Method 7029.

For PHOSPHORUS: Refer to NIOSH Manual of Analytical Methods (NMAM), 4th Edition, Method 7905.

For SILVER: Refer to NIOSH Manual of Analytical Methods (NMAM), 4th Edition, Method 7300.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Metallic wire, rod or strip
Odor: Odorless
Boiling Point: Not Determined
Specific Gravity ($H_2O=1$): 7.75
Melting Point: 636.9 °C
Vapor Pressure (mm Hg): Not Applicable
Vapor Density (Air=1): Not Applicable
Evaporation Rate (Butyl Acetate=1): Not Applicable
% Solubility In Water: Insoluble
pH: Not Applicable

SECTION 10: STABILITY AND REACTIVITY

Stability: Generally considered stable.

Avoid: None expected.

INCOMPATIBILITY (Materials to Avoid)

Strong acids and bases, oxidizing agents, acetylene, ammonia, hydrogen peroxide, magnesium metal, ammonium nitrate, hydrogen sulfide.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS

Toxic metal oxides are emitted when heated above the melting point. The amount of fume evolved increases as the temperature rises.

Polymerization: Polymerization is not expected to occur.

Avoid: Not applicable.

SECTION 11: TOXICOLOGICAL INFORMATION

CHEMICAL NAME	% Wt.	LD50	LC50
COPPER			
CAS NO.: 7440-50-8	89	3.5 mg/kg MOUSE, intraperitoneal	Not Available
SILVER			
CAS NO.: 7440-22-4	5	Not Available	Not Available
PHOSPHORUS			
CAS NO.: 7723-14-0	6	Not Available	Not Available

NOTE: See Sections 3, 8 and 12 for additional information.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY

No data available.

ENVIRONMENTAL FATE

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

US EPA Waste Number: D011

This product contains SILVER or silver compounds and disposal may be regulated under EPA hazardous waste regulations, waste number D011. Before disposal, this product or mixtures containing this product should be tested for toxicity characteristics (TC) under the current EPA Hazardous Waste Regulations TCLP testing procedures 40 CFR Part 261 et seq. Disposal/recycling/reclamation requirements will vary by location and type of disposal selected. Consult with state and local regulatory authorities.

****NOTE**** Chemical additions, processing or otherwise altering this material may make the waste management information presented above incomplete, inaccurate or otherwise inappropriate.

As local regulations may vary: all waste must be disposed/recycled/reclaimed in accordance with federal, state, and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

INTERNATIONAL

UN Number: Not Regulated

UNITED STATES

EPA Waste Number: D011
DOT Classification: Not Regulated
CANADA
PIN Number: Not Regulated
TDG Class: Not Regulated
EC:
DGL: Not Determined



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SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

TSCA: IN TSCA
SARA 311 AND 312 HAZARD CATEGORIES

IMMEDIATE (Acute) Health Hazard: YES

DELAYED (Chronic) Health Hazard: YES

FIRE Hazard: NO

REACTIVITY Hazard: NO

Sudden Release of PRESSURE: NO

SARA SECTION 313 NOTIFICATION

This product contains a toxic chemical (or chemicals) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

CHEMICAL NAME	CAS Number	% Wt.
COPPER	7440-50-8	89
SILVER	7440-22-4	5
PHOSPHORUS	7723-14-0	6

OZONE DEPLETING SUBSTANCES (ODS)

This product neither contains nor is manufactured with an ozone depleting substance subject to the labeling requirements of the Clean Air Act Amendments 1990 and 40 CFR Part 82.

VOLATILE ORGANIC COMPOUNDS (VOC)

None

US STATE REGULATIONS

VOLATILE ORGANIC COMPOUND (CARB): None

CANADIAN REGULATIONS

DSL/NDSL: DSL

WHMIS Classification: Class D Division 2 Subdivision B

EUROPEAN REGULATIONS

ENECs: Not Determined

OTHER REGULATIONS

MITI (Japan): Not Determined

AICS (Australia): Not Determined

SECTION 16: OTHER INFORMATION

REVISIONS

Revision Number: 2

This MSDS has been revised in the following section(s):

SECTION I: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SECTION III: HAZARDS IDENTIFICATION

SECTION V: FIRE-FIGHTING MEASURES

SECTION VIII: EXPOSURE CONTROLS/PERSONAL PROTECTION

SECTION X: STABILITY AND REACTIVITY

SECTION XV: REGULATORY INFORMATION

LABEL COPY

PREPARATION INFORMATION

Prepared By: Corporate Environment, Health & Safety Group

Phone Number: See Section I

The information in this Material Safety Data Sheet should be provided to all who will use, handle, store, transport, or otherwise be exposed to this product. This information has been prepared for the guidance of plant engineering, operations, and management and for persons working with or handling this product. The information presented in the MSDS is premised upon proper handling and anticipated uses and is for the material without chemical additions/alterations. We believe this information to be reliable and up-to-date as of the date of publication, but make no warranty that it is. Additionally, if this Material Safety Data Sheet is more than three years old, please contact the supplier at the phone number listed in Section I

to make certain that this sheet is current. License granted to make unlimited copies ~~internal~~
use only. End of MSDS.....

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